

REMARKS

Summary of the Office Action

Claims 1-8 were pending in the application.

Claims 1-8 have been rejected under 35 U.S.C. § 112 as being indefinite. The Examiner, for example, states that claim 1 omits recitation of essential structural co-operative elements, and further suggests that the recitation of "end-face of the screen" in claim 1 requires further points of reference. Claims 1-3 also have been rejected under 35 U.S.C. 102(e) as being anticipated by Dubin et al. U.S. patent No. 6,469,830 B1 ("Dubin"). The Examiner indicates allowable subject matter in claims 4-8, and states that they would be allowed if rewritten in suitable form and to overcome 35 U.S.C. § 112 indefiniteness rejection.

The drawings have been objected to under 37 CFR §1.83 (a) as not showing all the features of claim 2. Claims 6-8 have been objected as having informalities.

Applicant's Reply

Applicant appreciates Examiner's indication of allowable subject matter in claims 4-8. Applicant has amended claim 1 to show the co-operation of the claim elements. Applicant has further amended claims 2-8 for clarity and added new claims 9-12. Further, applicant has amended the specification for clarity. No new matter is added.

Applicant traverses the §102(e) prior art rejection and also traverses the objection to the drawings.

Amendments to the Specification

In the Prior Art section of the specification, two paragraphs have been added. The added paragraphs describe prior art and do not constitute new matter. In the Description of the Invention section of the specification (page 6), one paragraph has been added. This paragraph lists in one location features of the claimed system that were previously listed at dispersed places

through the text and figures of the previously submitted disclosure. Applicant respectfully submits that this paragraph does not constitute "new matter" and should be entered as old matter.

Objection to the Drawings.

Applicant notes that the submitted drawings already show versions of optical elements that include lens, prisms and mirrors (FIGS. 5a and 5b). Therefore, the applicant requests that the requirement for additional drawings be withdrawn.

The § 112 Indefiniteness Rejection.

Applicant has amended the claims 1-8 and added new dependent claims 9-13 to clarify the claimed invention. In particular, claim 1 has been amended to show the co-operation of the claimed elements. Claims 2-8 have been simplified by deleting limitations. Some of the deleted limitations have then been incorporated in new claims 9-12.

Applicant respectfully submits that the amended claims meet all the requirements of 35 U.S.C. § 112.

The Prior Art Rejections

Claims 1-3 were rejected as anticipated by Dubin. Applicant respectfully submits that Dubin does not show, suggest or teach applicant's invention.

Applicant notes that Dubin concerns improvements to conventional display screens used in conventional projection systems. Dubin shows the use of "angle redistributing pre-screens that act a position independent field lens" to improve the characteristics of a conventional diffusive screen used in conventional projection systems. (See e.g., col. 3, lines 28-30). Dubin's prescreen covers the entire conventional screen, i.e. both have the same area. (See e.g., FIG. 1a).

In contrast, applicant's invention concerns a novel display projection system in which rays are projected at acute angles α along the surface of a display screen. The projected rays propagating along or parallel to the surface then are reflected by small-area optical elements in to viewing sectors at angles β , which may be perpendicular to the display screen. (See e.g. directional arrows a and b, FIG. 1). The total area of the optical elements may be a small fraction of the viewing screen. (See e.g. FIG. 2). The elements of the novel projection system, according to claim 1, include a viewing screen, a projector for projecting rays at an acute angle along the viewing screen surface the surface, a plurality of small-area optical elements disposed on the viewing screen that reflect or deflect the projected rays toward the a viewing sector, and means for aligning or focussing the cross sections of the projected rays with entrance windows of the optical elements,

Applicant respectfully submits that Dubin does not show the projection system of claim 1 or its elements. For example, Dubin does not show a projector for projecting rays at acute angles to the surface of the viewing screen. Similarly, Dubin does not show small-area optical elements that redirect the rays travelling along the surface of the screen toward a viewing sector. Further, Dubin does not show means for aligning or focussing the cross sections of the projected rays with the entrance windows of the optical elements.

For at least the foregoing reasons claim is patentable over Dubin. Further, claims 2-13 that depend on claim 1 are also patentable.

Conclusion

For the reasons set forth above, applicant requests that the 35 U.S.C. § 112 rejections and prior art rejections be withdrawn. Applicant respectfully submits that this application is now in condition for allowance. Reconsideration and prompt allowance of which are requested.

Respectfully submitted,

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